ABSTRACT

Tungsten trioxide hydrate (WO₃·H₂0) was prepared from a precursor solution of ammonium paratungstate in concentrated aqueous hydrochloric acid. The precursor solution was rapidly added to water, resulting in the crash precipitation of a yellow white powder identified as WO₃·H₂0 nanosized platelets by x-ray diffraction and scanning electron microscopy. Annealing of the powder at 200°C provided cubic phase WO₃ nanopowder, and at 400°C provided WO₃ nanopowder as a mixture of monoclinic and orthorhombic phases.